



INVASIVE ALIEN SPECIES OF PEI:

Garlic Mustard

Alliaria petiolata



What are invasive species?

Invasive species are species that are introduced to an area outside of their native range. They can be introduced intentionally or unintentionally.

Why are invasive species a problem?

Once they establish, invasive plants can reproduce quickly because they have no natural predators or pathogens to keep them in check, and they often become the dominant species in an ecosystem. This can have devastating effects on the environment. Invasive species can displace native plants by monopolizing space, light, water and other resources needed for growth. They can completely alter native plant communities and drastically lower biodiversity. Invasive species can also adversely affect the economy and human health, and interfere with recreational activities.

HISTORY

Garlic mustard originates from Europe. It was brought to North America for culinary and medicinal purposes. It escaped cultivation and is now widespread throughout Eastern and Central North America and parts of the West Coast. In Prince Edward Island, garlic mustard is only found in isolated populations within the Prince Edward Island National Park.

IDENTIFICATION

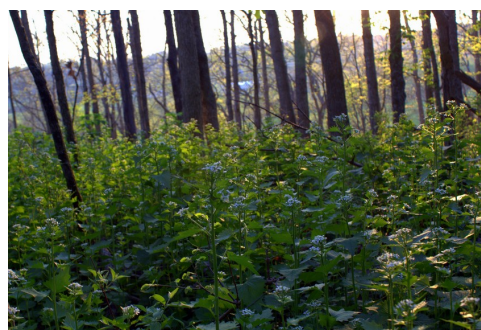
Here are some distinguishing features that may help you positively identify garlic mustard:

- First year plants form leafy rosettes close to the ground
- Second year plants can reach 1m in height, and have a flowering stalk
- Flowers are small, white, and cross-shaped with 4 petals
- Flowers grow in small clusters at the top of leafy stems
- Leaves are triangular-heart-shaped and have serrated edges
- Plants emit a very strong garlic smell



CONCERN

Garlic mustard competes with native plant species for light, nutrients and space. Garlic mustard will form dense stands, which choke out native plants. Studies have shown that garlic mustard also negatively affects mycorrhizal fungi. Mycorrhizal fungi grow underground and form mutually beneficial relationships with plant roots. When garlic mustard depletes mycorrhizal fungi, it also depletes native plant species that depend on the fungi for growth.



HABITAT

Garlic mustard is very shade tolerant and can flourish in full shade. It often is found growing in moist soils, along trails, floodplains, forest edges, forest understories, and roadsides.



CONTROL

Control of a garlic mustard population is a long term commitment. It may take many years of monitoring and plant pulling before a population is entirely eliminated, because garlic mustard seeds remain viable in the ground for 5 years. If a population is small enough, physical removal by hand should be the method employed. Removal should take place before the second year plants have gone to seed. As much of the plant and root system as possible should be removed because even small pieces of root can produce a new plant. Sites should be monitored every growing season. As long as no plants go to seed, there should be a steady decrease in population size until eventually the seed bank is drained. In addition, it is important that native species be planted where invasive species were removed from to prevent future invasions.

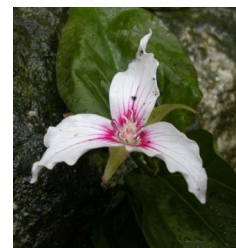
GARDEN ALTERNATIVES

Bunchberry (*Cornus canadensis*) is native to PEI. Like garlic mustard, bunchberry grows well in the full shade of forests. It is low growing and often forms dense patches. It has a single white flower which yields a small bunch of red berries. The flower blooms June-July.



Bluebead lily (*Clintonia borealis*) is native to PEI. It grows in full shade or part shade and is often found growing in dense stands in forests or swamps. It is low growing. It produces a whorl of leaves at the base of a single stem. Small, pale yellow, flowers grow at the top of each stem, which yield a cluster of blue berries.

Painted trillium (*Trillium undulatum*) is native to PEI. It has a beautiful 3-petaled flower with a purple center, which grows at the top of a single stalk surrounded by a whorl of deep green leaves. It is low growing and does best in shaded areas.



How can you help?

Here are a few things you can do to help stop the introduction and spread of alien invasive species:

- Learn more about invasive species in PEI, including how to identify species of concern
- Choose native species whenever possible
- Carefully inspect and clean clothing, gear, animals, and vehicles before visiting a new natural area
- Never dump garden or pond waste in a natural area.
- When disposing of invasive species, they should be placed in a clear or dark plastic bag and taken to Island Waste Management for incineration
- Report a sighting

How to report:

If you think you have seen this invasive species on Prince Edward Island, please report your sighting to Island Nature Trust by phone or e-mail

Phone: (902) 892-7513

Email: intrust@eastlink.ca



ISLAND

NATURE TRUST

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